

REVERSE OPTICAL MASTERING FOR DATA STORAGE DISKS

ABSTRACT

A data storage master disk and method of making a data storage master disk. The data storage disk master is for use in a data storage disk replication process. The data storage disk molding processes produces replica disks having a surface relief pattern with replica lands and replica grooves. The method includes providing a master substrate. The master substrate is at least partially covered with a layer of photosensitive material. A surface relief pattern having master lands and master grooves is recorded in the data storage disk master, including the steps of exposing and developing the photosensitive material. The exposing and developing of a specified thickness of photosensitive material is controlled to form master grooves extending down to a substrate interface between the master substrate and the layer of photosensitive material, such that the width of the master grooves at the substrate interface corresponds to a desired width of the replica lands.